

Work Order ID 152833

Tuesday, November 08, 2016 8:21:26 AM

152833

Page 1

Item ID: D2648-3 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Wearpad
 Start Date: 10/26/2016 Start Qty: 10.00 ***10*** Cust Item ID:
 Required Date: 11/7/2016 Req'd Qty: 10.00 ***10*** Customer:
 Reference:

Approvals: Process Plan: DAS 21 Date: NOV 08 2016 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2648	Rev D								
100	FLOW WATER JET	0.00							
100									
Waterjet	Memo	0.07							
FLOW CNC Waterjet	1-Cut as per Dwg D2648 *****CUT WITH FILE D2648-1*****								
	Dwg Rev: <u>D</u> Prog Rev: <u>D</u>								
	2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110									
QC	Memo	0.02							
Quality Control									

(10)

12/16/10

(10)

12/16/10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
Root Cause				FAULT CATEGORY																					
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐															
OTHER : _____																									

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Page 2

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Required Date: 11/7/2016 Req'd Qty: 10.00 ***10*** Customer:
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Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.03				<u>10</u>			DAS 38 9-88 NOV 10 2016
140 *140* Brake NC Brake NC	NC BRAKE Memo 1-Form as per Dwg D2648 on CNC brake using Jigs DT 8261 and DT 8326. 2-Identify as D2648-3	0.04 0.02				<u>10</u>			DAS 30 9-88 NOV 11 2016
150 *150* Large Fab Large Fab	Weld per dwg A/R Hardcoat steel Batch: <u>M135425</u> Large Fab Memo 1-Weld as per Dwg D2648 using Jig DT 8210 2-Remove any weld that penetrated through Wearpadif necessary	0.00 0.08				<u>10</u>			OYC 16/11/17

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* QC Quality Control	QC10- Inspect visual per QSI004- ground welds Memo	0.00 0.00				<u>10</u>			DAS 38 9-89 NOV 17 2016
170 *170* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.03				<u>10</u>			DAS 38 9-89 NOV 17 2016
180 *180* Powdercoat Powder Coating	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3 <u>M 134858</u> Memo START TIME: <u>8:40</u> OVEN TEMPERATURE: <u>300°</u> FINISH TIME: <u>9:10</u>	0.00 0.02				<u>10</u>	<u>φ</u>	<u>16-11-18</u>	<u>BA</u>

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Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
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Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
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Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC3- Inspect Part Finish	0.00							
190						10			DAS 38 9-89
QC	Memo	0.02							
Quality Control									NOV 21 2016
200	Identify as per dwg & Stock Location: <u>Stock</u>	0.00							
200						10			NOV 22 2016
Packaging	Memo	0.02							DAS 6 9-89
Packaging									
210	QC21- Final Inspection - Work Order Release	0.00							
210									16/11/22
QC	Memo	0.17							
Quality Control									DAS 21 9-89 NOV 22 2016

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		OTHER : ☐																							

Picklist Print

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Page 1

Work Order ID: 152833

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Parent Item: D2648-3

D2648-3

Parent Item Name: Wearpad

Start Date: 10/26/2016

Required Date: 11/7/2016

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP: E02.09.18Re-format; Incorporated D2648-1KJ/RF
IPP Rev:F Now on Waterjet 06-08-14 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M1010S16GA		Purchased	No			100	sf	83.3000	0.075	0.789474			
M1010S16GA									**				
1010/1025 sheet 16GA													

22/11/16

Location

Loc Qty

Loc Code

MAT019

83.3

124428

83.3

1.2

DQA: _____ Date: _____



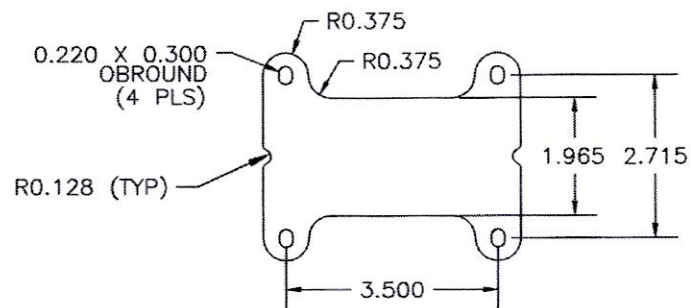
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

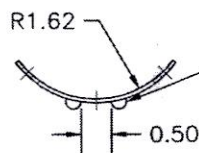
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

D2648-1 FLAT PATTERN



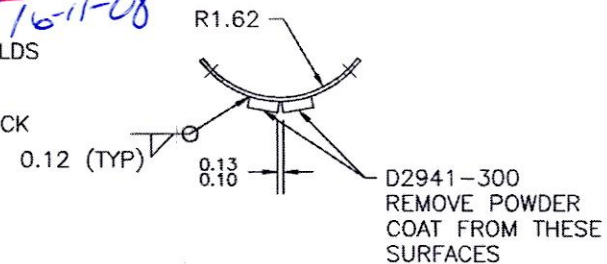
SECTION A-A



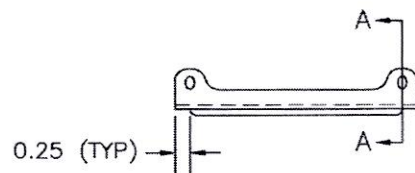
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 152833 MJS
16-11-08

7560 HARDCOAT WELDS
TO WITHIN 0.25 OF
WEARPAD ENDS
0.063 TO 0.125 THICK

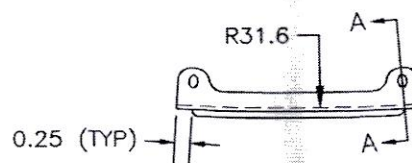
SECTION B-B



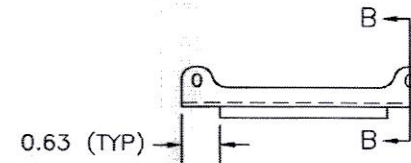
D2648-3 LONGITUDINAL BEND (MADE FROM D2648-1)



D2648-5 LONGITUDINAL BEND (MADE FROM D2648-1)



D2648-7 LONGITUDINAL BEND (MADE FROM D2648-1)



BREAK ALL SHARP CORNERS 0.063 MAX
MATERIAL: 16 GAUGE AISI 1010-1025 OR ASTM A36/A366 STEEL (0.063 THICK)
FINISH: POWDER COAT GREY (REF. 4.3.5.5) PER DART QSI 005
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
ALL DIMENSIONS ARE IN INCHES

RELEASED
98.12.20 D5



D	99.11.17	ADDED D2648-7
C	97.06.26	R31.6 WAS R19.6
B	97.05.30	ENLARGE OBOUND, 0.375 WAS 0.250
A	97.03.25	NEW ISSUE
DESIGN	DRAWN BY	DART DART AEROSPACE USA, INC. BELLINGHAM, WA
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